

OPINION 2312 (Case 3544)***Apis armbrusteri* Zeuner, 1931 (Insecta, Hymenoptera): name conserved by designation of a neotype**

Abstract. The Commission has conserved the name *Apis armbrusteri* Zeuner, 1931 for a species of fossil honey bee occurring in the Miocene fauna of southwestern Germany by designating a neotype.

Keywords. Nomenclature; taxonomy Hymenoptera; APIDAE; *Apis*; *armbrusteri*; *Cascapis*; *Hauffapis*; apiculture; fossil honey bees; Miocene.

Ruling

- (1) Under the plenary power, the Commission has set aside all previous type fixations for the nominal species *Apis armbrusteri* Zeuner, 1931 and designated as neotype a specimen from the same geological horizon at Randeck Maar (SMNS 64675 in the Staatliches Museum für Naturkunde, Stuttgart).
- (2) The name *Cascapis* Engel, 1999 (gender: feminine), type species by original designation *Apis armbrusteri* Zeuner, 1931 is hereby placed on the Official List of Generic Names in Zoology.
- (3) The name *armbrusteri* Zeuner, 1931, as published in the binomen *Apis armbrusteri* and as defined by the neotype designated in (1) above (specific name of the type species of *Cascapis* Engel, 1999) is hereby placed on the Official List of Specific Names in Zoology.

History of Case 3544

An application to conserve the name *Apis armbrusteri* Zeuner, 1931 for a fossil species of honey bee occurring in the Miocene fauna of southwestern Germany by designating a neotype was received from Michael S. Engel (*Natural History Museum, University of Kansas, Lawrence, Kansas, U.S.A.*), Ulrich Kotthoff (*Geologisch-Paläontologisches Institut, Universität Hamburg, Hamburg, Germany*) and Torsten Wappler (*Steinmann-Institut für Geologie, Mineralogie und Paläontologie, Universität Bonn, Bonn, Germany*) on 15 November 2010. After correspondence the case was published in BZN 68: 117–121 (2011). The title, abstract and keywords of the case were published on the Commission's website. No comments were received on this case.

Decision of the Commission

On 1 June 2012 the members of the Commission were invited to vote on the proposals published in BZN 68: 119. At the close of the voting period on 1 September 2012 the votes were as follows:

Affirmative votes – 17: Ballerio, Bouchet, Brothers, Fautin, Harvey, Krell, Kottelat, Lamas, Lim, Minelli, Pape, Rosenberg, Štys, Winston, Yanega, Zhou and Zhang.

Negative votes – 6: Alonso-Zarazaga, Grygier, Halliday, Kojima, Kullander and van Tol.

Bogutskaya abstained. Ng, Patterson and Pyle were on leave of absence.

Voting FOR, Brothers said that despite the apparent situation that there was no other species in the relevant deposits which could be confused with *A. armbrusteri*, that was a matter of taxonomic judgment. Designation of a diagnostic neotype would assist in clarifying taxonomic limits. Although he voted FOR, Kottelat felt that the application was not well written. Also voting FOR, Yanega commented that while a neotype might not be required in cases where there was no taxonomic confusion regarding an inferior type's identity, the existence of a junior synonym which could be interpreted by some authors as being the valid name 'by default' did suggest to him that invoking Article 75.5 (which exists for this sole reason) was appropriate in this case.

Voting AGAINST, Alonso-Zarazaga said he could not see the need for a neotype. He said that everybody seemed to agree on the identity of the extant holotype (even if it lacked diagnostic characters) and there was no taxonomic problem involved, menacing stability and universality, as required by Article 75.5. So this application fell under Article 75.2. Also voting AGAINST, Grygier said that at present everyone agreed that only one taxonomic species of fossil bee was involved; therefore, no matter what the holotype's condition, there was no pressing need for a neotype. Halliday explained that he voted AGAINST this application because he felt that the proposed action was unnecessary. He said there was no doubt about the taxonomic identity of *Apis armbrusteri*, so the authors were proposing a solution to a problem that did not exist. He felt that the Commission could not be asked to make a ruling on every species that had a poor-quality holotype. Also voting AGAINST, Kojima said that even though *Apis armbrusteri* Zeuner, 1931 could not be determined from its existing name-bearing type, its stability or universality did not seem to be threatened. He also noted that the type depository was not mentioned in this proposal.

Bogutskaya ABSTAINED, and explained that she could vote neither for nor against because of the following: (1) Considering the way the situation was narrated in the application, the Case did not seem to deserve voting; this opinion also appeared in e-mails from Harvey and Grygier who said that there was no taxonomic problem involved and no stability threatened and thus Article 75.5 was not entirely applicable. So, she said she would have voted against but she had found a paper by Kotthoff et al. (2011) (ZooKeys 96: 11–37, doi: 10.3897/zookeys.96.752) that described (page 13) what was indeed lacking from the Case. So, she would vote 'for' but obviously could not because of the fact that this [necessary] information was not in the Case text itself. (2) Even without regard to her point (1), she was not entirely satisfied with the lack of information. Missing was any indication as to whether the type series (or holotypes) of *scheuthlei*, *scheeri*, and *scharmanni* were extant (probably yes, since the authors told us these names were based on 'exceptionally well preserved early honey bees from the Early Miocene of Randeck Maar'). In case the type series (or holotypes) of these considered-to-be synonyms existed, why was the neotype not selected from them? It would have served stabilisation in a better way (linking *A. armbrusteri* sensu Zeuner & Manning (1976) with the Randeck Maar material). Further, if the neotype for some reason was selected from other material, why did the

authors not present information on whether the designation confirmed/supported the synonymisation of *armbrusteri*, *scheuthlei*, *scheeri*, and *scharmanni*?

Original references

The following are the original references to the names placed on Official Lists and Indexes by the ruling given in the present Opinion:

Cascapis Engel, 1999, *Journal of Hymenoptera Research*, **8**: 187.

armbrusteri, *Apis*, Zeuner, 1931, *Fortschritte der Geologie und Palaeontologie*, **9**: 292.